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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|--------------------------------|------------------------|------------------|
| 10/532,103 | 04/21/2005 | Kunio Atago | NIWA | 3931 |
| 7590 | 06/01/2007 | EXAMINER PHAN, RAYMOND NGAN | | |
| James C Wray Suite 300 1493 Chain Bridge Road McLean, VA 22101 | | ART UNIT 2111 | PAPER NUMBER PAPER | |
| | | MAIL DATE 06/01/2007 | DELIVERY MODE PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

- The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/532,103 | ATAGO, KUNIO |
| | Examiner | Art Unit |
| | Raymond Phan | 2111 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 March 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2 and 4 is/are rejected.
- 7) Claim(s) 3 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications: amendment filed on March 17, 2007.
2. This application has been examined. Claims 1-4 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jewett et al. (US No. 6,263,452) in view of Lanus et al. (US No. 6,112,271).

In regard to claims 1, 4, disclose a control system comprising: a system controller (i.e. first CPU board) comprising a bus arbiter 110 and a non-volatile memory 107 (see figure 4, col.13, lines 10-25); a bus employing a center arbitration method, wherein the single bus arbiter 110 is connected to a plurality of CPUs via a the bus (see col. 14, lines 20-62), from which devices can be detached and to which the detached devices can be attached again as power being supplied (see col. 27, lines 5-48); and a plurality of CPU boards which execute the same processes synchronously (see col. 5, lines 48-65). But Jewett do not disclose having only periodically executed functions and passive functions; wherein: said system controller control the system to continue processes only by periodically executed functions and passive functions of a hardware structure of the system such that when one of said CPU boards on said bus is down while accessing to said non-volatile memory, said system controller assigns the right to use said bus to

other CPU board according to a requirement from said other CPU board; and even if one of the CPU board is down, the system is restored by detaching said down CPU board from said bus and attaching said detached CPU board to said bus again as power for the whole system being supplied. However Lanus et al. disclose management module having only periodically executed functions and passive functions (i.e. standby) (see col. 2, lines 51-59) wherein: said system controller control the system to continue processes only by periodically executed functions and passive functions of a hardware structure of the system such that when one of said CPU boards on said bus is down while accessing to said non-volatile memory, said system controller assigns the right to use said bus to other CPU board according to a requirement from said other CPU board (see col. 4, lines 40-60); and even if one of the CPU board is down, the system is restored by detaching said down CPU board from said bus and attaching said detached CPU board to said bus again as power for the whole system being supplied (see col. 4, lines 40-60).

Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Lanus et al. within the system of Jewett et al. because it would be desirable to have a backplane for multiple bus architecture that is capable of multiple configurations.

In regard to claim 2, Lanus et al. disclose a duplex power source system having a plurality of power sources, wherein: even if one of the CPU boards or power sources is down, the system is restored by detaching said down CPU board or said down power source from said bus and attaching said detached CPU board or said detached power source to said bus again as power for the whole system being supplied (see col. 3, lines 8-35). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined

the teachings of Lanus et al. within the system of Jewett et al. because it would be desirable to have a backplane for multiple bus architecture that is capable of multiple configurations.

Allowable Subject Matter

1. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claim 1 is allowable over the prior art of record because the prior arts, cited in its entirety, or in combination, do not teach a duplex IO board system having a plurality of IO boards, wherein: said system controller control the system to continue processes only by periodically executed functions and passive functions of the hardware structure of the system such that when one of said CPU boards or one of said IO boards on said bus is down while accessing to said non-volatile memory, said system controller assigns the right to use said bus to other CPU board or other IO board of said duplex IO board system according to a requirement from said other CPU board or said other IO board.

Response to Amendment

5. Applicant's amendment and arguments, see on pages 3-7, filed on March 17, 2007, with respect to the rejection of claims 1-2, 4 under 35USC103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lanus et al.

Conclusion

6. Claims 1-2, 4 are rejected. Claim 3 is objected.
7. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Somers et al. (US No. 6,687,851) disclose a method and system for upgrading fault-tolerant systems.

Chang et al. (US No. 7,085,961) disclose a redundant management board blade server management system.

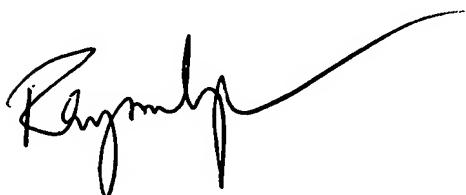
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



Raymond Phan
May 27, 2007